UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8960

February 18, 2000

Howard L. Rhodes, Director
Air Resources Management Division
Florida Department of Environmental Management
Mail Station 5500
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: EPA's Review of Proposed Title V Permit No. 0310071-003-AV
Bush Boake Allen, Inc., Jacksonville, Florida

Dear Mr. Rhodes:

The purpose of this letter is to notify the Florida Department of Environmental Protection (FDEP) that the U.S. Environmental Protection Agency (EPA) formally objects to the issuance of the above referenced proposed title V operating permit for the Bush Boake Allen, Inc. facility in Jacksonville, Florida, which was received by EPA, via e-mail notification and FDEP's web site, on January 5, 2000. This letter also provides our general comments on the proposed permit.

Based on EPA's review of the proposed permit and the supporting information received for this facility, EPA objects, under the authority of Section 505(b) of the Clean Air Act ("the Act") and 40 C.F.R. § 70.8(c) (see also Florida Regulation 62-213.450), to the issuance of the proposed title V permit for this facility. The basis for EPA's objection is that the permit does not fully meet the periodic monitoring requirements of 40 C.F.R. § 70.6(a)(3)(i). Pursuant to 40 C.F.R. § 70.8(c), this letter and its enclosure contain a detailed explanation of the objection issues and the changes necessary to make the permit consistent with the requirements of 40 C.F.R. part 70 and assure compliance with applicable requirements of the Clean Air Act. The enclosure also contains general comments applicable to the permit.

Section 70.8(c) requires EPA to object to the issuance of a proposed permit in writing within 45 days of receipt of the proposed permit (and all necessary supporting information) if EPA determines that the permit is not in compliance with the applicable requirements under the Act or the requirements of 40 C.F.R. Part 70. Section 70.8(c)(4) of the title V regulations and Section 505(c) of the Act further provide that if the State fails to revise and resubmit a proposed permit within 90 days to satisfy the objection, the authority to issue or deny the permit passes to EPA, and EPA will act accordingly. Because the objection issues must be fully addressed within the 90 days, we suggest that the revised permit be submitted in advance in order that any outstanding issues may be resolved prior to the expiration of the 90-day period.

If you have any questions or wish to discuss this further, please contact Mr. Gregg Worley, Chief of the Operating Source Section, at (404) 562-9141. Should your staff need additional information, they may contact Ms. Elizabeth Bartlett, Florida Title V Contact, at (404) 562-9122 or Ms. Lynda Crum, Associate Regional Counsel, at (404) 562-9524.

Sincerely,

/s/ James S. Kutzman, for

Winston A. Smith
Director
Air, Pesticides & Toxics
Management Division

Enclosures

cc: Terrence A. Fore, Bush Boake Allen, Inc.
Clair Fancy, P.E., FDEP
Christopher L. Kirts, P.E., FDEP - Northeast District

Enclosure 1

U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Bush Boake Allen, Inc.
Permit no. 0310071-003-AV

I. EPA Objection Issues

1. Periodic Monitoring - Section III, Conditions A.1., B.1., and C.1. contain specific limits on allowed heat input rates, but no periodic monitoring is provided to ensure that these limits are met. If heat input is limited to ensure that stack testing is representative of normal operation, then a permitting note must be added to this condition to clarify that it is not intended as an enforceable limit, as stated in previous permits issued for power plants in Florida.

2. Periodic Monitoring - Section III, Conditions A.3. and B.3. contain limits for particulate matter, however conditions A.7. and B.7. state that no monitoring or testing is required. In order to address periodic monitoring requirements of 40 C.F.R. 70.6(a)(3) and 62-213.440(1)(b), F.A.C., the permit should require monitoring "sufficient to yield reliable data from the relevant time period that are representative of the source's compliance" with the emission limits specified in the conditions A.3 and B.3. To provide an adequate basis for the annual certification of compliance, conditions A.7 and B.7 should be revised to specify what monitoring will be conducted and the associated frequency of that monitoring. The statement of basis should address the basis for the monitoring frequency or provide a justification of why periodic monitoring is not required.

3. Appropriate Averaging Times - The particulate matter emission limits in conditions A.3 and B.3 do not contain averaging times. Because the stringency of emission limits is a function of both magnitude and averaging time, appropriate averaging times must be added to the permit in order for the limits to be practicably enforceable. An approach that may be used to address this deficiency is to include a general condition in the permit stating that the averaging times for all specified emission standards are tied to or based on the run time of the test method(s) used for determining compliance.

4. Periodic Monitoring: Section III, Conditions A.10, B.10, and C.10 do not require routine Method 9 visible emissions readings to demonstrate compliance with the visible emissions limits specified in conditions A.6, B.6., and C.6. Without a specified testing frequency, the permit does not contain adequate periodic monitoring to ensure continuous compliance with the opacity standard.

Monitoring frequency, record keeping and reporting must be addressed in the permit, or justification must be provided in the statement of basis demonstrating that periodic monitoring is not necessary because visible emissions could not reasonably exceed the 20 percent limit.

5. Periodic Monitoring/Practical Enforceability - The permit limits and conditions related to SO_2 emissions limits from the #2 and #3 boilers (Section III, Conditions A.4., A.8., B.4., B.8. and Subsection D) do not ensure compliance with the SO_2 emissions cap for the facility specified in D.1 (1549 TPY). While the permit limits sulfur in fuel oil to 0.7 weight percent, potential SO_2 emissions from fuel oil combustion in both units (500 TPY) only account for about one third of the cap. According to the SO_2 emissions calculations in Attachment 16 of the permit application, most of the SO_2 emissions (2338 TPY, combined #2 and #3 boilers) are generated through combustion of TRS vapors from the vapor collection system, which are estimated based on the amount of crude sulfate terpentine (CST) processed at the plant. Since potential SO_2 emissions are close to the cap and are closely related to the amount of CST processed, the material balance should be conducted at least monthly to ensure that the source can achieve and certify compliance with the SO_2 cap in D.1. To ensure consistency of calculations, the data collection and assumptions in condition D.2 should be separated and the material balance methodology must be clearly stated in the permit. Finally, the material balance calculation must also include contributions from combustion of used oil.

6. Applicable Requirements - Section III, Condition C.3. states that there are no quantitative particulate matter limits, but the regulatory citation refers to a "BACT equivalent in Permit #0310071-005-AC." No other information is provided. The statement of basis or permit must state what the BACT equivalent is, and why no other permit limits are provided for particulate matter control.

7. Periodic Monitoring - Section III, Condition C.4. limits the sulfur content of process-derived fuels to 0.63 percent and condition C.12 references Subsection D as the means to ensure compliance with SO_2 limits. However, Subsection D does not require monitoring of sulfur in process-derived fuels. Subsection D must include process-derived fuels monitoring, or a discussion must be provided in the statement of basis to explain why such monitoring is not necessary to ensure compliance.

II General Comments

1. Statement of Basis - The statement of basis for this permit was fairly brief. In order to facilitate a greater understanding of the permit and the reasoning behind some of the permit limits, the statement of basis should be revised. A summary of

each regulated emission unit should be provided which includes a brief description and history of the unit, including fuels, construction date, emissions limits, and associated monitoring. For this facility, in particular, a discussion should be provided which describes the SO_2 control strategy and how the permit ensures that the limits are met. For example, the June 1996 permit application estimates that potential SO_2 emissions from incinerating TRS vent gases is well over the SO_2 cap specified in Subsection D. It is unclear how SO_2 emissions from incineration of TRS vapors has been reduced to meet the cap when the calculation methodology is the same as in the June 1996 permit application. The statement of basis should address such questions to ensure that both the permittee and the public understand what is required and expected.

2. Section I, Subsection B, and Section III, Subsections D, E, F, and G - Each of these subsections contain a table of emission unit(s) to which the common conditions apply. These tables list the permit contents, including the emission units, subsection, and unit description, along with listings for the subsections which contain common conditions. The common condition listings should be removed from these tables, since common conditions do not apply to the other common conditions.

3. Section II, Condition 3. - This condition contains a title and a regulatory citation, but no requirements. This condition should be revised to add specific requirements or removed from the permit.

4. Section II, Condition 10. - 40 C.F.R. Part 70.6 (c)(5)(iii) lists the necessary components of a Title V compliance certification, and requires that those components be included in Title V permits. However, Facility-Wide Condition # 10 of this permit does not specify that the source submit compliance certifications to EPA that contain those required components. This portion of the permit should specifically state that the source is required to submit compliance certifications consisting of the required components. Further, those required components should be listed in the permit.

   In this case the list from 40 C.F.R. Part 70.6 (c)(5)(iii) is contained at Appendix TV-3. While it is sufficient to include the list in an Appendix to the permit, the required compliance certification components should at least be mentioned in the permit at the condition requiring the source to submit a Title V compliance certification to EPA. This will allow the requirement to be clear and enforceable. Therefore, Facility-Wide Condition # 10 of the permit should mention the required components listed at 40 C.F.R. Part 70.6 (c)(5)(iii), and reference the list contained at Appendix TV-3.

5. Section III, Conditions A.1. and B.1. - These conditions say that vapors from

listed process equipment are incinerated in the #2 and #3 boilers. The cover page of the June 1996 permit application references "mandatory incineration of TRS vapors." Since TRS vapor incineration appears to be required under state or local regulation, a permit condition should be added to specifically address this requirement.

6. Section III, Conditions A.6 and B.6. - These conditions address the occurrence of excess emissions from the #2 and #3 boilers. More specifically, excess emissions resulting from malfunction are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized. EPA has recently addressed the issue of excess emissions in a September 20, 1999, policy memorandum (see Enclosure 2) from Steven A. Herman, Assistant Administrator for Enforcement and Compliance Assurance and Robert Perciasepe, Assistant Administrator for Air and Radiation. The September 20, 1999, memo reaffirms and supplements the EPA's original policy regarding excess emissions during malfunction, startup, shutdown, and maintenance, which is contained in memoranda from Kathleen Bennett, formerly Assistant Administrator for Air, Noise and Radiation dated September 28, 1982, and February 15, 1983. The permit conditions and associated regulations that address excess emissions should be consistent with EPA's policy.

7. Section III, Subsection G - This subsection contains a direct copy of the regulations regarding required title V permit content. While the permit must contain requirements that meet these regulations, it is not necessary to repeat these regulations. The specific requirements, such as unit-specific emission limits and periodic monitoring requirements, are supposed to be present in the main body of the permit, and standard condition requirements are provided in Appendix TV-3. Subsection G should be removed from this permit, as it is not necessary.

8. Appendix I-1, List of Insignificant Emissions Units and/or Activities - According to the description at the beginning of this appendix, emission units can only be defined as insignificant if they first qualify under the "Categorical Exemptions" as defined under Rule 62-210.300(3)(a), F.A.C. Therefore, it appears that the units listed under items 1 through 7, should be reclassified as "Unregulated Emission Units and /or Activities," because they are not subject to any requirements associated with emission limits and moved to Appendix U-1.

Enclosure 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

September 20, 1999

MEMORANDUM

SUBJECT: State Implementation Plans: Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown

FROM: Steven A. Herman
Assistant Administrator for Enforcement and Compliance Assurance

Robert Perciasepe
Assistant Administrator for Air and Radiation

TO: Regional Administrators, Regions I - X

EPA's policy for state implementation plans (SIPs) regarding excess emissions during malfunctions, startup, shutdown, and maintenance is contained in memoranda from Kathleen Bennett, formerly Assistant Administrator for Air, Noise and Radiation dated September 28, 1982 and February 15, 1983. A recent review of SIPs suggests that several contain provisions that appear to be inconsistent with this policy, either because they were inadvertently approved after EPA issued the 1982-1983 guidance or because they were part of the SIP at that time and have never been removed. In order to address these provisions in a consistent manner, today we are reaffirming and supplementing the 1982-83 policy. In so doing, we are taking this opportunity to clarify several issues of interpretation that have arisen since that time. The updated policy will clarify the types of excess emissions provisions states may incorporate into SIPs so that they can in turn provide greater certainty to the regulated community.

As EPA stated in its 1982 memorandum, because excess emissions might aggravate air quality so as to prevent attainment or interfere with maintenance of the ambient air quality standards, EPA views all excess emissions as violations of the applicable emission limitation. Nevertheless, EPA recognizes that imposition of a penalty for sudden and unavoidable

malfunctions caused by circumstances entirely beyond the control of the owner or operator may not be appropriate. Accordingly, a state or EPA can exercise its "enforcement discretion" to refrain from taking an enforcement action in these circumstances.

The main question of interpretation that has arisen regarding the old policy is whether a state may go beyond this "enforcement discretion" approach and include in its SIP a provision that would, in the context of an enforcement action for excess emissions, excuse a source from penalties if the source can demonstrate that it meets certain objective criteria (an "affirmative defense"). This policy clarifies that states have the discretion to provide such a defense to actions for penalties brought for excess emissions that arise during certain malfunction, startup, and shutdown episodes.

In the context of malfunctions, EPA recognizes that even equipment that is properly designed and maintained can sometimes fail. At the same time, EPA has a fundamental responsibility under the Clean Air Act to ensure that SIPs provide for attainment and maintenance of the national ambient air quality standards ("NAAQS")and protection of PSD increments. Thus, EPA cannot approve an affirmative defense provision that would undermine the fundamental requirement of attainment and maintenance of the NAAQS, or any other requirement of the Clean Air Act. See sections 110(a) and (l) of the Clean Air Act, 42 U.S.C. § 7410(a) and (l).[1] Accordingly, an acceptable affirmative defense provision may only apply to actions for penalties, but not to actions for injunctive relief. This restriction insures that both state and federal authorities remain able to protect air quality standards and PSD increments.

Furthermore, this approach is appropriate only when the respective contributions of individual sources to pollutant concentrations in ambient air are such that no single source or small group of sources has the potential to cause an exceedance of the NAAQS or PSD increments.[2] Where a single source or small

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[1]Pursuant to Section 110(l), EPA may not approve a SIP revision if "the revision would interfere with any applicable requirement concerning attainment and reasonable further progress, or any other applicable requirement of this chapter." See also CAA § 193, 42 U.S.C. § 7515, and the definitions of "emission limitation" and "emission standard" contained in CAA § 302(k), 42 U.S.C. § 7602(k).

[2] In the case of lead and sulfur dioxide, attainment problems usually are caused by one or a few sources and an affirmative defense is not appropriate. This situation can be particularly aggravated where a short-term standard (e.g., where exceedances or violations are based on a few hour period) is also in place. Although this policy is generally applicable for other NAAQS,

group of sources has the potential to cause an exceedance of the NAAQS or PSD increments, EPA believes an affirmative defense approach will not be adequate to protect public health and the environment, and the only appropriate means of dealing with excess emissions during malfunction, startup, and shutdown episodes is through an enforcement discretion approach.[3]

EPA is also taking this opportunity to clarify that it does not intend to approve SIP revisions that would allow a state director's decision to bar EPA's or citizens' ability to enforce applicable requirements. Such an approach would be inconsistent with the regulatory scheme established in Title I of the Clean Air Act. EPA is also adding contemporaneous record keeping and notification criteria to make its policy regarding these types of events consistent with its enforcement approach.

Finally, EPA is clarifying how excess emissions that occur during periods of startup and shutdown should be addressed. In general, because excess emissions that occur during these periods are reasonably foreseeable, they should not be excused. However, EPA recognizes that, for some source categories, even the best available emissions control systems might not be consistently effective during startup or shutdown periods. In areas where the respective contributions of individual sources to pollutant concentrations in ambient air are such that no single source or small group of sources has the potential to cause an exceedance of the NAAQS or PSD increments, these technological limitations may be addressed in the underlying standards themselves through narrowly-tailored SIP revisions that take into account the potential impacts on ambient air quality caused by the inclusion of these allowances. In these instances, as part of its justification of the SIP revision, the state should analyze the

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enforcement discretion is the only appropriate approach for dealing with excess emissions during startup, shutdown, and malfunction in a specific area where a single source or a small group of sources has the potential to cause nonattainment of a short-term NAAQS.

[3] In American Trucking Association v. EPA, 175 F. 3d 1027 (D.C. Circ., 1999), the court remanded the PM2.5 NAAQS to the EPA. The Agency has not determined whether this policy is appropriate for PM2.5 NAAQS.

impact of the potential worst-case emissions that could occur during startup and shutdown.[4]

In addition to this approach, states may address this problem through the use of enforcement discretion or they may include a general affirmative defense provision in their SIPs for short and infrequent startup and shutdown periods along the lines outlined in the attachment. As mentioned above, however, in those areas where a single source or small group of sources has the potential to cause an exceedance of the NAAQS or PSD increments, issues relating to excess emissions arising during startup and shutdown may only be addressed through an enforcement discretion approach.

All Regions should review the SIPs for their states in light of this clarification and take steps to insure that excess emissions provisions in these SIPs are consistent with the attached guidance.

Attachment

[4]States may account for such emissions by including them in their routine rule effectiveness estimates. Rule effectiveness estimates may be prepared in accordance with an EPA policy document entitled "Guidelines for Estimating and Applying Rule Effectiveness for Ozone/Carbon Monoxide State Implementation Plan Base Year Inventories." (EPA-452/R-92-010) November 1992.

Attachment

POLICY ON EXCESS EMISSIONS DURING MALFUNCTIONS, STARTUP, AND SHUTDOWN

Introduction

This policy specifies when and in what manner state implementation plans (SIPs) may provide for defenses to violations caused by periods of excess emissions due to malfunctions,[1] startup, or shutdown. Generally, since SIPs must provide for attainment and maintenance of the national ambient air quality standards and the achievement of PSD increments, all periods of excess emissions must be considered violations. Accordingly, any provision that allows for an automatic exemption[2] for excess emissions is prohibited.

However, the imposition of a penalty for excess emissions during malfunctions caused by circumstances entirely beyond the control of the owner or operator may not be appropriate. States may, therefore, as an exercise of their inherent enforcement discretion, choose not to penalize a source that has produced excess emissions under such circumstances.

This policy provides an alternative approach to enforcement discretion for areas and pollutants where the respective contributions of individual sources to pollutant concentrations in ambient air are such that no single source or small group of sources has the potential to cause an exceedance of the NAAQS or PSD increments. Where a single source or small group of sources has the potential to cause an exceedance of the NAAQS or PSD increments, as is often the case for sulfur dioxide and lead,[3] EPA believes approaches other than enforcement discretion are not appropriate. In such cases, any excess emissions may have a significant chance of causing an exceedance or violation of the applicable standard or PSD increment.

Except where a single source or small group of sources has

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[1]The term excess emission means an air emission level which exceeds any applicable emission limitation. Malfunction means a sudden and unavoidable breakdown of process or control equipment.

[2]The term automatic exemption means a generally applicable provision in a SIP that would provide that if certain conditions existed during a period of excess emissions, then those exceedances would not be considered violations.

[3]This policy also does not apply for purposes of PM2.5 NAAQS. In American Trucking Association v. EPA, 175 F. 3d 1027 (D.C. Circ., 1999), the court remanded the PM2.5 NAAQS to the EPA. The Agency has not determined whether this policy is appropriate for PM2.5 NAAQS.

the potential to cause an exceedance of the NAAQS or PSD increments, states may include in their SIPs affirmative defenses[4] for excess emissions, as long as the SIP establishes limitations consistent with those set out below. If approved into a SIP, an affirmative defense would be available to sources in an enforcement action seeking penalties brought by the state, EPA, or citizens. However, a determination by the state not to take an enforcement action would not bar EPA or citizen action.[5]

In addition, in certain limited circumstances, it may be appropriate for the state to build into a source-specific or source-category-specific emission standard a provision stating that the otherwise applicable emission limitations do not apply during narrowly defined startup and shutdown periods.

I. AUTOMATIC EXEMPTIONS AND ENFORCEMENT DISCRETION

If a SIP contains a provision addressing excess emissions, it cannot be the type that provides for automatic exemptions. Automatic exemptions might aggravate ambient air quality by excusing excess emissions that cause or contribute to a violation of an ambient air quality standard. Additional grounds for disapproving a SIP that includes the automatic exemption approach are discussed in more detail at 42 Fed. Reg. 58171 (November 8, 1977) and 42 Fed. Reg. 21372 (April 27, 1977). As a result, EPA will not approve any SIP revisions that provide automatic exemptions for periods of excess emissions.

The best assurance that excess emissions will not interfere with NAAQS attainment, maintenance, or increments is to address excess emissions through enforcement discretion. This policy provides alternative means for addressing excess emissions of criteria pollutants. However, this policy does not apply where a single source or small group of sources has the potential to cause an exceedance of the NAAQS or PSD increments. Moreover, nothing in this guidance should be construed as requiring states to include affirmative defense provisions in their SIPs.

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[4]The term affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

[5]Because all periods of excess emissions are violations and because affirmative defense provisions may not apply in actions for injunctive relief, under no circumstances would EPA consider periods of excess emissions, even if covered by an affirmative defense, to be “federally permitted releases” under EPCRA or CERCLA.

II. AFFIRMATIVE DEFENSES FOR MALFUNCTIONS

EPA can approve a SIP revision that creates an affirmative defense to claims for penalties in enforcement actions regarding excess emissions caused by malfunctions as long as the defense does not apply to SIP provisions that derive from federally promulgated performance standards or emission limits, such as new source performance standards (NSPS) and national emissions standards for hazardous air pollutants (NESHAPS).[6] In addition, affirmative defenses are not appropriate for areas and pollutants where a single source or small group of sources has the potential to cause an exceedance of the NAAQS or PSD increments. Furthermore, affirmative defenses to claims for injunctive relief are not allowed. To be approved, an affirmative defense provision must provide that the defendant has the burden of proof of demonstrating that:

1. The excess emissions were caused by a sudden, unavoidable breakdown of technology, beyond the control of the owner or operator;

2. The excess emissions (a) did not stem from any activity or event that could have been foreseen and avoided, or planned for, and (b) could not have been avoided by better operation and maintenance practices;

3. To the maximum extent practicable the air pollution control equipment or processes were maintained and operated in a manner consistent with good practice for minimizing emissions;

4. Repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as practicable;

5. The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;

6. All possible steps were taken to minimize the impact of the excess emissions on ambient air quality;

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[6]To the extent a state includes NSPS or NESHAPS in its SIP, the standards should not deviate from those that were federally promulgated. Because EPA set these standards taking into account technological limitations, additional exemptions would be inappropriate.

7. All emission monitoring systems were kept in operation if at all possible;

8. The owner or operator's actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs, or other relevant evidence;

9. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

10. The owner or operator properly and promptly notified the appropriate regulatory authority.

EPA interprets these criteria narrowly. Only those malfunctions that are sudden, unavoidable, and unpredictable in nature qualify for the defense. For example, a single instance of a burst pipe that meets the above criteria may qualify under an affirmative defense. The defense would not be available, however, if the facility had a history of similar failures because of improper design, improper maintenance, or poor operating practices. Furthermore, a source must have taken all available measures to compensate for and resolve the malfunction. If a facility has a baghouse fire that leads to excess emissions, the affirmative defense would be appropriate only for the period of time necessary to modify or curtail operations to come into compliance. The fire should not be used to excuse excess emissions generated during an extended period of time while the operator orders and installs new bags, and relevant SIP language must limit applicability of the affirmative defense accordingly.

III. EXCESS EMISSIONS DURING STARTUP AND SHUTDOWN

In general, startup and shutdown of process equipment are part of the normal operation of a source and should be accounted for in the planning, design, and implementation of operating procedures for the process and control equipment. Accordingly, it is reasonable to expect that careful and prudent planning and design will eliminate violations of emission limitations during such periods.

5. SOURCE CATEGORY SPECIFIC RULES FOR STARTUP AND SHUTDOWN

For some source categories, given the types of control technologies available, there may exist short periods of emissions during startup and shutdown when, despite best efforts regarding planning, design, and operating procedures, the otherwise applicable emission limitation cannot be met. Accordingly, except in the case where a single source or small

group of sources has the potential to cause an exceedance of the NAAQS or PSD increments, it may be appropriate, in consultation with EPA, to create narrowly-tailored SIP revisions that take these technological limitations into account and state that the otherwise applicable emissions limitations do not apply during narrowly defined startup and shutdown periods. To be approved, these revisions should meet the following requirements:

1. The revision must be limited to specific, narrowly-defined source categories using specific control strategies (e.g., cogeneration facilities burning natural gas and using selective catalytic reduction);

2. Use of the control strategy for this source category must be technically infeasible during startup or shutdown periods;

3. The frequency and duration of operation in startup or shutdown mode must be minimized to the maximum extent practicable;

4. As part of its justification of the SIP revision, the state should analyze the potential worst-case emissions that could occur during startup and shutdown;

5. All possible steps must be taken to minimize the impact of emissions during startup and shutdown on ambient air quality;

6. At all times, the facility must be operated in a manner consistent with good practice for minimizing emissions, and the source must have used best efforts regarding planning, design, and operating procedures to meet the otherwise applicable emission limitation; and

7. The owner or operator's actions during startup and shutdown periods must be documented by properly signed, contemporaneous operating logs, or other relevant evidence.

6. GENERAL AFFIRMATIVE DEFENSE PROVISIONS RELATING TO STARTUP AND SHUTDOWN

In addition to the approach outlined in Section II(A) above, states may address the problem of excess emissions occurring during startup and shutdown periods through an enforcement discretion approach. Further, except in the case where a single source or small group of sources has the potential to cause an exceedance of the NAAQS or PSD increments, states may also adopt for their SIPs an affirmative defense approach. Using this approach, all periods of excess emissions arising during startup

and shutdown must be treated as violations, and the affirmative defense provision must not be available for claims for injunctive relief. Furthermore, to be approved, such a provision must provide that the defendant has the burden of proof of demonstrating that:

1. The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;

2. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

3. If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

4. At all times, the facility was operated in a manner consistent with good practice for minimizing emissions;

5. The frequency and duration of operation in startup or shutdown mode was minimized to the maximum extent practicable;

6. All possible steps were taken to minimize the impact of the excess emissions on ambient air quality;

7. All emission monitoring systems were kept in operation if at all possible;

8. The owner or operator’s actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs, or other relevant evidence; and

9. The owner or operator properly and promptly notified the appropriate regulatory authority.

If excess emissions occur during routine startup or shutdown periods due to a malfunction, then those instances should be treated as other malfunctions that are subject to the malfunction provisions of this policy. (Reference Part I above).